

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-26 (canceled)

Claim 27 (currently amended): A method for producing fullerene comprising the steps of: providing a pair of carbon-based electrodes spaced apart to define a region therebetween; generating an arc discharge between the pair of carbon-based electrodes; and supplying a gas containing carbon that includes a hydrocarbon gas and sulfur to the region between the electrodes.

Claim 28 (original): The method for producing fullerene according to claim 27 wherein the gas containing carbon is continuously supplied to the region between the pair of carbon-based electrodes.

Claim 29 (canceled)

Claim 30 (currently amended): The method for producing fullerene according to ~~claim 29~~claim 27 wherein the hydrocarbon gas includes methane.

Claims 31-35 (canceled)

Claim 36 (original): The method for producing fullerene according to claim 27 wherein an amount of inert gas is supplied in addition to the gas containing carbon to the region between the pair of carbon-based electrodes.

Claim 37 (canceled)

Claim 38 (original): The method for producing fullerene according to claim 27 wherein the pair of carbon-based electrodes comprises an anode that includes a catalyst metal.

Claim 39 (original): The method for producing fullerene according to claim 38 wherein the catalyst metal is selected from the group consisting of Co, Ni, Sc, V, Cr, Mn, Fe, Cu, Y, Zr, Nb, Mo, Pd, Ta, W, Au, Th, U, La, Ce, Pr, Nd, Gd, Tb, Dy, Ho, Er, Tm, Lu and mixtures thereof.

Claim 40 (original): A device for producing fullerene comprising:
a pair of carbon rod electrodes; and
a gas supply mechanism capable of continuously supplying gas containing carbon to a region spaced between the pair of carbon rod electrodes.

Claim 41 (original): The device for producing fullerene according to claim 40 wherein one of the pair of carbon rod electrodes has a through hole opened to the region spaced between the pair of carbon rod electrodes and wherein the gas supply mechanism is capable of supplying the gas containing carbon to the region between the pair of carbon rod electrodes via the through hole.

Claim 42 (original): The device for producing fullerene according to claim 40 wherein the gas supply mechanism includes a pipe having a nozzle in juxtaposition to the region between the pair of carbon rod electrodes.

Claim 43 (original): The device for producing fullerene according to claim 40 wherein a material gas supply source is further provided for supplying the gas containing carbon to the gas supply mechanism.

Claim 44 (original): The device for producing fullerene according to claim 43 wherein the material gas supply source is adapted to supply gas containing hydrocarbon gas to the gas supply mechanism.

Claim 45 (canceled)

Claim 46 (original): The device for producing fullerene according to claim 40 wherein an inert gas supply source is further provided for supplying inert gas to the gas supply mechanism.

Claim 47 (canceled)

Claim 48 (original): The device for producing fullerene according to claim 43 wherein the material gas supply source is adapted to supply methane to the gas supply mechanism.

Claim 49 (original): The device for producing fullerene according to claim 43 wherein a sulfur adding mechanism for adding sulfur to the gas containing carbon is further provided between the material gas supply source and the gas supply mechanism.

Claim 50 (canceled)

Claim 51 (original): The device for producing fullerene according to claim 40 wherein the pair of carbon rod electrodes comprises an anode that includes a catalyst metal.

Claim 52 (original): The device for producing fullerene according to claim 51 wherein the catalyst metal is selected from the group consisting of Co, Ni, Sc, V, Cr, Mn, Fe, Cu, Y, Zr, Nb, Mo, Pd, Ta, W, Au, Th, U, La, Ce, Pr, Nd, Gd, Tb, Dy, Ho, Er, Tm, Lu, and combinations thereof.

Claim 53 (new): A method for producing fullerene comprising the steps of: providing a pair of carbon-based electrodes spaced apart to define a region therebetween; generating an arc discharge between the pair of carbon-based electrodes; and supplying a gas containing carbon to the region between the electrodes wherein the gas containing carbon includes methane and hydrogen sulfide.

Claim 54 (new): A method for producing fullerene comprising the steps of: providing a pair of carbon-based electrodes spaced apart to define a region therebetween; generating an arc discharge between the pair of carbon-based electrodes; and supplying a gas containing carbon to the region between the electrodes wherein the gas containing carbon includes a hydrocarbon gas and wherein the gas containing carbon passes through thiophene so that the gas containing carbon includes sulfur.

Claim 55 (new): The method of claim 54 wherein the gas containing carbon is bubbled in thiophene so that the gas containing carbon includes sulfur.

Claim 56 (new): A method for producing fullerene comprising the steps of: providing a pair of carbon-based electrodes spaced apart to define a region therebetween; generating an arc discharge between the pair of carbon-based electrodes; and supplying a gas containing carbon to the region between the electrodes wherein an amount of hydrogen gas is supplied in addition to the gas containing carbon to the region between the pair of carbon-based electrodes.

Claim 57 (new): A method for producing fullerene comprising the steps of: providing a pair of carbon-based electrodes spaced apart to define a region therebetween; generating an arc discharge between the pair of carbon-based electrodes; and supplying a gas containing carbon to the region between the electrodes wherein an amount of inert gas and hydrogen gas in addition to the gas containing carbon is supplied to the region between the pair of carbon-based electrodes.

Claim 58 (new): A device for producing fullerene comprising:

a pair of carbon rod electrodes; and

a gas supply mechanism capable of continuously supplying gas containing carbon to a region spaced between the pair of carbon rod electrodes wherein a hydrogen gas supply source is further provided for supplying hydrogen gas to the gas supply mechanism.

Claim 59 (new): A device for producing fullerene comprising:
pair of carbon rod electrodes; and

a gas supply mechanism capable of continuously supplying gas containing carbon to a region spaced between the pair of carbon rod electrodes wherein a hydrogen gas supply source for supplying hydrogen gas to the gas supply mechanism and an inert gas supply source for supplying inert gas to the gas supply mechanism is further provided.

Claim 60 (new): A device for producing fullerene comprising:
a pair of carbon rod electrodes; and

a gas supply mechanism capable of continuously supplying gas containing carbon to a region spaced between the pair of carbon rod electrodes wherein a hydrogen sulfide supply source for supplying hydrogen sulfide to the gas supply mechanism is further provided.